

To: Dermer, Michele[Dermer.Michele@epa.gov]; Dean, Jill[Dean.Jill@epa.gov]
Cc: Smith, Robert-Eu[Smith.Robert-Eu@epa.gov]; Tiago, Joseph[Tiago.Joseph@epa.gov]; McWhirter, Lisa[McWhirter.Lisa@epa.gov]; Albright, David[Albright.David@epa.gov]
From: Shari Ring
Sent: Thur 4/23/2015 8:10:11 PM
Subject: RE: California Oil and Gas Field Reports

Each record in the data base relates to an aquifer, not a well.

If I remember correctly, each producing zone in a field was considered to be a distinct aquifer exemption/record. Thus, there may have been multiple aquifer exemptions on each page of those volumes. I think this added up to about 1,000 records.

Shari Ring

The Cadmus Group, Inc.

703.247.6159

From: Dermer, Michele [mailto:Dermer.Michele@epa.gov]
Sent: Thursday, April 23, 2015 3:45 PM
To: Dean, Jill
Cc: Shari Ring; Smith, Robert-Eu; Tiago, Joseph; McWhirter, Lisa; Albright, David
Subject: Re: California Oil and Gas Field Reports

California is no longer committed to doing anything for a year. We should have a conversation. Also, I would not mind seeing David's 2012 memo so I would know what he thought he was sending you. I would also like to help sort out what I can for you so you guys are not spinning your wheels. I do not know the number of exempt aquifers in the Volumes but there are many. I did not, nor do I understand that what is in the HQ database is injection wells, but maybe David's email will explain that.

From: Dean, Jill
Sent: Thursday, April 23, 2015 9:59 AM
To: Dermer, Michele; Smith, Robert-Eu; Tiago, Joseph; Albright, David; McWhirter, Lisa
Cc: Shari.Ring@cadmusgroup.com
Subject: RE: California Oil and Gas Field Reports

My read of what's happened based on the memo on AE from David Albright in 2012 and having had a discussion with Horsley Witten this morning is that the CA data in our database is focused on the injection wells within the exemptions rather than just the exemptions themselves. I never got a final # of aquifers that have been exempted as described in the Oil and Gas Report Volumes, but I got the impression that we're actually talking about <200 aquifers instead of >1000 injection wells in aquifers. If this is completely incorrect, then someone please tell me.

I think it would be a great idea if HQ got updated from time to time on CA's approach to and progress on developing their dataset so we know we're not doing anything duplicative. The sooner we get updated, the better because we are trying to make our plans (at HQ) now to finalize the dataset and release the GIS data publicly. We're going to have plenty of caveats in the comms materials to explain the dataset is a work-in-progress and we'll be updating it, but we do need a game plan for the dataset we'll release this summer. If that game plan excludes all CA data totally until CA finalizes the data, then we can do that. We'll just have to explain why CA isn't in the dataset.

On a personal note, I understand that CA is trying to get the data cleaned up, but my experience is that assuming they've actually made this work their top priority may result in us spinning our wheels waiting on a product when they might not be doing as much as we could've done in the same amount of time. The CA data may be a project that is best divided to conquer if we have the resources (I don't know that we have the resources, but I don't know what work is being done or needs to be done either).

Thanks, Jill

Jill Dean

Physical Scientist

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From: Shari Ring [<mailto:Shari.Ring@cadmusgroup.com>]
Sent: Thursday, April 23, 2015 11:48 AM
To: Dermer, Michele; Dean, Jill
Cc: Smith, Robert-Eu; Tiago, Joseph; Albright, David; McWhirter, Lisa
Subject: RE: California Oil and Gas Field Reports

We added notes in the data base to identify the source of the records, so the items from the primacy application should be easy to extract. Based on a quick count, there are 66 records from the application, so going through them shouldn't be too bad.

I think we can easily find the items on the 1981 list too.

Item 3 will be hard to go through – lots of pages of very small print. ☹

Shari Ring

The Cadmus Group, Inc.

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From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]
Sent: Thursday, April 23, 2015 11:33 AM
To: Shari Ring; Dean, Jill
Cc: Smith, Robert-Eu; Tiago, Joseph; Albright, David; McWhirter, Lisa
Subject: Re: California Oil and Gas Field Reports

Thank you Shari for looking all this up.

1. And it is that list (non hc bearing zones) from the Primacy Application that made it into the data base that is in error. When you are ready Jill, I will work with you to sort it out.

2. Only the formations in the Volumes from 1973 and 1974 should be in the database. So the 1981 volume should not be in the database.

3. This also confirms for us that what is posted on line for the Volumes by the State is different from what we authorized at Primacy. And what is on line that they posted is what the State is digitizing for their database. Which means we have different databases. This is all unfortunate.

From: Shari Ring <Shari.Ring@cadmusgroup.com>

Sent: Thursday, April 23, 2015 6:24 AM

To: Dermer, Michele; Dean, Jill

Cc: Smith, Robert-Eu; Tiago, Joseph; Albright, David

Subject: RE: California Oil and Gas Field Reports

FYI, I found the copies Headquarters gave us a few years ago. We have slightly different versions of the online files.

TR10 (2 versions, from 1973 and 1981)

TR11 (unsure of publication date)

TR12 (published 1974)

It's hard to tell how well they match up to what's online, but based on a quick eyeballing, they are not the same.

We also have a primacy application (1981) with a table of "non-hydrocarbon producing zones being used for wastewater disposal."

I believe all of this is in the data base.

Shari Ring

The Cadmus Group, Inc.

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From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]
Sent: Tuesday, April 21, 2015 12:53 PM
To: Dean, Jill
Cc: Smith, Robert-Eu; Shari Ring; Tiago, Joseph; Albright, David
Subject: RE: California Oil and Gas Field Reports

Hi Jill and Shari,

A few notes:

1. The documents that Joe has provided a link to below are on the DOGGR website. Several weeks ago I was notified by DOGGR that they were uncertain that what EPA had in its files for these three documents were identical to those which are posted on the DOGGR website. At DOGGR's request we copied the volumes we had and sent them up to Sacramento where they are being compared. These are the same reports that I sent to Joe a while back that he had copied. There is no certainty that what is posted at this link is identical to what we had in our files (that formed the basis of the exempt hydrocarbon producing zones at primacy) unless someone does a page by page comparison. DOGGR is presumably doing this now.

2. Non hydrocarbon producing zones were also exempted at primacy. Some years ago Region 9 submitted a list of 87 formations (from the primacy application) to EPA HQ to incorporate into the AE database. However we have become aware that we did not exempt all 87 formations, but rather 32 or 21 depending on which version of the MOA you are looking at, but either way, not all 87. Unfortunately all 87 were entered into the database and it is those formations that need to be reconciled with the 32 or 21 that are exempt, and removed.

Michele

From: Tiago, Joseph
Sent: Tuesday, April 21, 2015 9:10 AM
To: Dean, Jill
Cc: Smith, Robert-Eu; Shari.Ring@cadmusgroup.com; Dermer, Michele; Tiago, Joseph
Subject: California Oil and Gas Field Reports

Hi Jill,

Please use the link below to access the reports we used to populate CA AEs. I found this online and I believe those are the same documents we received from Region 9 and which were copied by Cadmus. I also confirmed with Cadmus that the data extraction and data entry were performed by them.

After we populated the database, we received a list of a few AEs (less than 30 I believe) that Michele Dermer wanted removed from the CA data set. I can't locate that list at this time and I hope Michele will still have it.

http://www.consrv.ca.gov/dog/pubs_stats/Pages/technical_reports.aspx

Publication Title / Description Number

No Number California Oil and Gas Fields
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(previously Contour maps, cross sections, and data sheets for California oil and gas fields TR10-12)
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<u>Volume 1-Central California</u> (1998, 35MB, 499 pg)

<u>Volume 2-Southern, Central Coastal, Offshore California</u> (1992, 45MB, 645 pg)

<u>Volume 3-Northern California</u> (1982, 22MB, 300 pg)
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Shari – I believe these are identical documents if so no worries about locating the scanned copies.

Thanks,

Joe.